AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A Savonius rotor wind turbine comprising:
   (a) a rotational axis upon which a Savonius rotor is rotatably disposed;
   (b) a least one vane having at least one concave and at least one convex side, said concave side, in cross-section along a plane perpendicular to said rotational axis, consisting of a line which is continuously curved; and
   (bc) at least one exhaust channel through each at least one vane, each of said at least one exhaust channel providing a flow path permitting air to pass through the Savonius rotor vane from the concave side to the convex side of each at least one vane of the Savonius rotor.

2. (Previously Presented) The Savonius rotor wind turbine of claim 1 wherein the at least one vane comprises an "S" shaped vane when viewed from an axis of rotation.

3. (Previously Presented) The Savonius rotor wind turbine of claim 1 wherein the exhaust channel is constructed so that air passing through the exhaust channel enters a freestream.

4. (Previously Presented) The Savonius rotor wind turbine of claim 1 additionally comprising circular support plates operably affixed to a top and a bottom of the Savonius rotor, wherein said circular support plates are symmetric about an axis of rotation.

5. (Previously Presented) The Savonius rotor wind turbine of claim 1 wherein the circular support plates have a diameter substantially equal to an overall length of the Savonius rotor vane.

6. (Previously Presented) The Savonius rotor wind turbine of claim 1 additionally comprising a plurality of Savonius rotors vertically disposed and operatively fastened one to another.

7. (Previously Presented) The Savonius rotor wind turbine of claim 6 wherein the plurality of Savonius rotors are oriented at fixed, rotated angular positions with respect to one another.

8. (Previously Presented) The Savonius rotor wind turbine of claim 1 additionally comprising photovoltaic cells affixed to outside surfaces of the Savonius rotor.

9. (Previously Presented) The Savonius rotor wind turbine of claim 8 additionally comprising a conical solar collector placed on top of the Savonius rotor with an apex of said conical solar collector facing up, said conical solar collector rotating with the Savonius rotor.

10. (Previously Presented) The Savonius rotor wind turbine of claim 9 wherein the conical solar collector comprises a plurality of isosceles triangle shapes of solar collector material creased from an apex to a center of a base such that a cross section of the solar collector isosceles triangle is a "V" shape; said plurality of creased solar collector isosceles triangles being arranged into the cone.

11. (Currently Amended) A method of configuring a Savonius rotor comprising at least one vane, each Savonius rotor vane having at least one concave and at least one convex side, the method comprising:

(a) disposing the Savonius rotor on a rotational axis;

(b) shaping said concave side, in cross-section along a plane perpendicular to said rotational axis, such that the concave side consists of a line which is continuously curved; and

(c) providing at least one exhaust channel to permit air to pass through the Savonius rotor vane from the concave side to the convex side.

12. (Previously Presented) The method of claim 11 additionally comprising the

step of forming the at least one vane in an "S" shape when viewed from an axis of rotation.

13. (Previously Presented) The method of claim 11 additionally comprising the steps of:

(a) stacking a plurality of Savonius rotors one above another; and

(b) rigidly affixing the plurality of Savonius rotors to one another, all sharing a common axis of rotation.

14. (Previously Presented) The method of claim 11 additionally comprising covering outer surfaces of the Savonius rotor wind turbine with solar collector material for converting solar radiation to electrical energy.

15. (Previously Presented) The method of claim 14 additionally comprising the steps of:

(a) constructing a plurality of isosceles triangle shapes of solar collector material;

(b) creasing said plurality of solar collector isosceles triangles from apex to center of base such that a cross section of the solar collector isosceles triangle is a "V" shape;

(c) arranging said plurality of creased solar collector isosceles triangles into a cone with an apex of the cone facing upward;

(d) operably attaching said cone above a top circular support plate.

16. (Currently Amended) A Savonius rotor wind turbine comprising:

(a) a rotational axis upon which a Savonius rotor is rotatably disposed;

(b) a vane having a concave and a convex side, said concave side, in cross-section along a plane perpendicular to said rotational axis, consisting of a line which is continuously curved; and

(bc) at least one exhaust channel through said vane, each of said at least one exhaust channels providing a flow path permitting air to pass through the

Savonius rotor vane from the concave side to the convex side of said vane of the Savonius rotor.

17. (Previously Presented) The Savonius rotor wind turbine of claim 16 wherein the vane comprises an "S" shaped vane when viewed from an axis of rotation.

18. (Previously Presented) The Savonius rotor wind turbine of claim 16 wherein the exhaust channel is constructed so that air passing through the exhaust channel enters a freestream.

19. (New) The Savonius rotor wind turbine of claim 16 wherein the vane, in plan view, comprises a first curved portion operatively coupled with a second curved portion, said operative coupling occurring at an axis of rotation of the Savonius rotor.

20. (New) The Savonius rotor wind turbine of claim 19 wherein the first and second curved portions comprise identical curvatures.